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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
| 09/048,795 | 03/27/98 | ICHIZAKI | T 35.62127 |

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EXAMINER

ANDERSON, M

ART UNIT PAPER NUMBER

1765

DATE MAILED: 02/22/00

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

| | |
|-------------------------------|---------------------------|
| Application No. 09/048,795 | Applicant(s), Ichizaki |
| Examiner Matt Anderson | Group Art Unit 1765 |

Responsive to communication(s) filed on 12/27/99

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle 835 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

Claim(s) 1-35 is/are pending in the application.

Of the above, claim(s) 3-26 and 35 is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1, 2, and 27-34 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

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DETAILED ACTION

Election/Restriction

1. Newly submitted claim 35 is directed to the nonelected Group III, process, of paper 10.

Since applicant has received an action on the merits for the originally elected invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 35 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokuhara (US 4,032,313).

Tokuhara describes an apparatus used for producing optical fibers by using crucibles. The crucible is divided into multi-stages, each of which has an overflow passage on the sidewall (See Fig. 2.) Such an arrangement of crucibles reads on the claims of the applicant of a production apparatus having a crucible divided in multi-stages wherein a degassing hole is provided in a side wall portion of the crucible.

The applicant is reminded that use claims do not impart patentability. Please refer to MPEP 2111.02 and MPEP 2173.05(q). Please see the above MPEP sections for germane case law citations.

4. Claims 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuhara as applied to claims 1-2 above, and further in view of Cherdov [Inorganic Materials, Vol. 28, No. 3 1992 (Russian)].

Tokuhara et al. discloses an apparatus as described above.

Tokuhara et al. does not disclose using the multiple crucibles sequentially.

Cheredov in Fig I shows the sequential location of the crystallization front of a Calcium Fluoride crystal being refined in the multistage crucible shown. Also seen is a hole in the center bottom of each crucible stage. Also disclosed is the use of oxygen for assisting the purification of the CaF being refined.

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It would have been obvious to combine the apparatus of Tokuhara and Cheredov to one of ordinary skill in the art at the time of the present invention because both inventions disclose multi-staged crucible apparatus and such a combination would have been anticipated to produce useful modifications to each apparatus.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to use such a crucible apparatus in a sequential manner because such a use is disclosed by Cheredov and because such a use would have been anticipated to produce an expected result.

It would have been obvious to duplicate the part of degassing holes (see MPEP 2144.04 VI.B) because Tokuhara discloses a hole in the side wall of the crucibles and duplication of such holes would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to include a connecting hole in the bottom center portion of the crucibles because such an arrangement is shown by Cheredov et al. and because such an arrangement would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to modify the size of the degassing hole and the inner diameter of the crucible (see MPEP 2144.04 IV.A), and the shape of the bottom face of the crucible (MPEP 2144.04 IV.B, because Tokuhara et al. discloses degassing holes in the sidewall of a crucible, Cheredov discloses multistage crucibles with a hole at the center, and because such modification would have been anticipated to produce an expected result.

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It would have been obvious to one of ordinary skill in the art at the time of the present invention that the crucibles of Tokuhara have a region for mounting a material (e.g. another crucible) because the crucible are described as stacking one on the other in the abstract and because providing such a mounting region on a crucible would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention that a region, obtained by superimposing a plurality of crucibles, would receive a material because Tokuhara discloses such a region in Fig. 2 and such a region would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to have as the bottom stage a crucible without a connecting hole because if used with a refining method such as Cheredov's, such a stage would prevent loss of the refined molten material out onto the floor and possible worker injuries and because such a bottom crucible would have been anticipated to produce an expected result.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt Anderson whose telephone number is (703) 308-0086. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are not successful, the examiner's supervisor, Benjamin Utech, can be reached at (703) 308-3836.

Any inquiry of a general nature can be directed to the group receptionist whose telephone number is (703) 308-0661.

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BENJAMIN L. UTECH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

MAA

February 15, 2000